

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte XM WONG and ROCK TAO

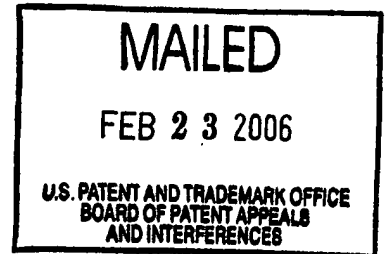
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Appeal No. 2006-0513  
Application No. 09/741,684

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ON BRIEF

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Before OWENS, RUGGIERO, and GROSS, Administrative Patent Judges.  
RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 7-12, which are all of the claims pending in the present application. Claims 1-6 and 13-18 have been canceled. An amendment filed March 15, 2004 after final rejection has been approved for entry by the Examiner.

The claimed invention relates to a suspension and slider assembly for a magnetic recording head in which a bonding substance is heated prior to being applied as a surface finishing

material to a metal bonding pad of the suspension. More particularly, a slider bonding pad, which initially has no bonding substance, is coupled to the suspension by the reflowing of the bonding substance on the suspension bonding pad, thereby coupling the suspension bonding pad to the slider bonding pad.

Claim 7 is illustrative of the invention and reads as follows:

7. A suspension comprising:  
a suspension bonding pad for electrically bonding a magnetic head terminal, wherein said bonding pad includes a metal pad having a bonding substance applied as a surface finishing material, the surface finishing material being heat treated prior to bonding to a surface; and  
a slider bonding pad initially without bonding substance coupled to said suspension such that the bonding substance on said suspension bonding pad is reflowed so as to electrically couple the suspension bonding pad and the slider bonding pad.

The Examiner relies on the following prior art:

Ainslie et al. (Ainslie)	4,761,699	Aug. 02, 1988
Albrecht et al. (Albrecht)	5,821,494	Oct. 13, 1998

Claims 7-11 stand finally rejected under 35 U.S.C. § 102(b) as being anticipated by either one of Ainslie or Albrecht.  
Claims 12 stands finally rejected under 35 U.S.C. § 103(a) as being unpatentable over either one of Ainslie or Albrecht.

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Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs<sup>1</sup> and Answer for the respective details.

#### OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the Examiner and the evidence of anticipation and obviousness relied upon by the Examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellants' argument set forth in the Briefs along with the Examiner's rationale in support of the rejections and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that the disclosure of Albrecht, as well as that of Ainslie, fully meets the invention as recited in claims 7-11. In addition, we are of the opinion that the evidence relied upon and the level of skill in the particular art would have suggested to

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<sup>1</sup> The Appeal Brief was filed June 21, 2004. In response to the Examiner's Answer dated September 7, 2004, a Reply Brief was filed November 12, 2004 which was acknowledged and entered by the Examiner as indicated in the communication dated November 15, 2005.

one of ordinary skill in the art the obviousness of the invention as set forth in claim 12. Accordingly, we affirm.

Appellants' arguments in response to the Examiner's rejections of the appealed claims are organized according to a suggested grouping of claims indicated at page 3 of the Brief. We will consider the appealed claims separately only to the extent separate arguments for patentability are presented. Any dependent claim not separately argued will stand or fall with its base claim. Note In re King, 801 F.2d 1324, 1325, 231 USPQ 136, 137 (Fed. Cir. 1986); In re Sernaker, 702 F.2d 989, 991, 217 USPQ 1, 3 (Fed. Cir. 1983).

We consider first the Examiner's 35 U.S.C. § 102(b) rejection of claims 7-11 based on Albrecht. At the outset, we note that anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

With respect to independent claim 7, the Examiner indicates (Answer, pages 3 and 4) how the various limitations are read on the disclosure of Albrecht. In particular, the Examiner directs attention to the illustrations in Albrecht's Figures 3 and 12A-12C, as well as the accompanying descriptions at column 10, lines 35-53, and column 11, lines 16-25 of Albrecht.

After reviewing the Examiner's analysis, it is our opinion that the stated position is sufficiently reasonable that we find that the Examiner has at least satisfied the burden of presenting a prima facie case of anticipation. The burden is, therefore, upon Appellants to come forward with evidence and/or argument which persuasively rebut the Examiner's prima facie case. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Briefs have not been considered and are deemed to be waived [see 37 CFR § 41.37(c)(1)(vii)].

Appellants' arguments in response to the rejection of independent claim 7 assert that the Examiner has not shown how each of the claimed features is present in the disclosure of Albrecht so as to establish a case of anticipation. Appellants' primary point of contention (Brief, pages 4 and 5; Reply Brief,

pages 2 and 3) is that, in contrast to the claimed invention, Albrecht has no disclosure of a suspension and slider connection in which the slider bonding pad is "initially without bonding substance." In making this argument, Appellants attempt to draw a distinction between the suspension/slider connection in Albrecht in which solder bumps are placed on both the slider and suspension pads.

After reviewing the Albrecht reference in light of the argument of record, however, we are in general agreement with the Examiner's position as stated in the Answer. Appellants' arguments to the contrary notwithstanding, the Examiner has, in our view, construed the claim limitation "initially without bonding substance" in a reasonable manner. We simply find no error in the Examiner's assertion that, as illustrated in Figure 12A of Albrecht, which depicts the slider pad 62 and suspension pad 64 as they appear before application of the solder bump 122, the slider bonding pad has no bonding substance. We would also point out, as also alluded to by the Examiner (Answer, page 6), that the language of claim 7 does not preclude the condition, as disclosed in Albrecht, in which, at some point in the slider/suspension connection process, bonding substance will be applied to the slider bonding pad.

We also make the observation that, while unnecessary for a determination of whether claim 7 is anticipated by Albrecht in view of our discussion supra, we find no error in the Examiner's assertion (Answer, page 6) that the "initially without bonding substance" in claim 7 is a process limitation which is entitled to no patentable weight in a product by process claim. We agree with the Examiner that in claims directed towards a product, it is the patentability of the final product *per se* which must be determined.

In the present factual situation, the Examiner has provided a reasonable rationale (Answer, page 6) for concluding that the claimed final end product, i.e., the suspension including the slider/suspension connection, will be the same or at least structurally equivalent whether or not bonding material is initially placed on both the slider pad and suspension pad and reflowed together, or whether bonding material is initially placed only on the suspension pad and reflowed to the slider pad. See In re Thorpe, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985).

We do recognize that Appellants may always provide evidence to show that the process claimed does, in fact, result in a product different from that disclosed by the applied reference.

Indeed, Appellants have made an argument (Brief, page 5; Reply Brief, pages 2 and 3) that the gravitational pull on the solder reflow and the initial solder placement will affect the shape of the solder bond resulting in a product different from that of the prior art. We find the record before us, however, to be totally devoid of any evidence to support such a conclusion and, in the absence of any such evidence, such a conclusion could only be based on unwarranted speculation.

In view of the above discussion, since all of the claimed limitations are present in the disclosure of Albrecht, the Examiner's 35 U.S.C. § 102(b) rejection of independent claim 7, as well as claims 8-11 not separately argued by Appellants, is sustained.

Turning to a consideration of the Examiner's 35 U.S.C. § 102(b) rejection of claims 7-11 based on Ainslie, we sustain this rejection as well. Appellants' sole argument (Brief, page 6; Reply Brief, page 5) in response to this rejection is that Ainslie's suspension 40 does not have a "bonding pad" as claimed but, instead, merely has circular openings in the lead terminations 47. In support of this contention, Appellants refer to a passage at column 4, lines 18-23 in Ainslie where the solder

contacts 70 on the slider 16 are described as "pads" while the suspension contacts are referred to as "solder-wettable regions."

After reviewing the disclosure of Ainslie, however, we are in agreement with the Examiner (Answer, page 7) that the lead terminations 47 in Ainslie would necessarily be considered to be metal bonding pads since they provide electrical connection with the slider bonding pads. The fact that Ainslie may not use the word "pads" in describing the suspension contacts is immaterial especially in view of the fact that Appellant has provided no disclosure of any particular structure of a contact pad that would provide any basis for the claim interpretation asserted by Appellants. We would further point out that it is well settled that, even if a reference fails to explicitly spell out every detail of a claimed invention, such a reference would anticipate a claim if it discloses the claimed invention "such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention." In re Graves, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), quoting from In re LeGrice, 301 F.2d 929, 936, 133 USPQ 365, 372 (CCPA 1962).

Lastly, we also sustain the Examiner's 35 U.S.C. § 103(a) rejection, based on either Albrecht or Ainslie, of dependent

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claim 12. We find no error in the Examiner's establishment of a prima facie case of obviousness with respect to the solder dimensions set forth in claim 12 based on the Examiner's line of reasoning as articulated at page 5 of the Answer. We also agree with the Examiner that Appellants made no separate argument, to which the Examiner could respond, with respect to claim 12 in the principal Brief, instead relying on arguments made with regard to claim 7. Although Appellants in the Reply Brief have made an argument denigrating the Examiner's reliance on the size of the slider pad in Albrecht as a basis for the rejection, we find no evidence forthcoming from Appellants which would convince us of any error in the Examiner's position.

In summary, we have sustained all of the Examiner's rejections of the claims on appeal. Therefore, the decision of the Examiner rejecting claims 7-12 is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (effective September 13, 2004).

AFFIRMED

Terry I. Owens

TERRY J. OWENS

Administrative Patent Judge

JOSEPH F. RUGGIERO

JOSEPH F. RUGGIERO

Administrative Patent Judge

Ante Pellman Gross

ANITA PELLMAN GROSS

Administrative Patent Judge

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BOARD OF PATENT  
APPEALS

## AND INTERFERENCES

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KENYON & KENYON  
SUITE 600  
333 W. SAN CARLOS STREET  
SAN JOSE, CA 95110-2711